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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,053	07/20/2000	Yang Cao	Cao-5	3581

7590 09/10/2003  
TROUTMAN, SANDERS, MAYS & VALENTINE  
ATTN: JOHN E. CURTIN, ESQ.  
1660 INTERNATIONAL DRIVE  
SUITE 600  
NCLEAN, VA 22102

EXAMINER

MOORE, IAN N

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 09/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/620,053

Applicant(s)

CAO, YANG

Examiner

Ian N Moore

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☒ Claim(s) 1 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.
  - The “real time variable rate (rt-VBR)” (at Claim 5, line 2; Claim 10, line 2; Claim 1, line 2; Claim 16, line 2; Claim 23, line 2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
  - “an IP switch” (at Claim 6, line 3 and Claim 17, line 3) and “an IP switch Fabric” (at Claim 23, line 2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. The drawings are objected to because there is no label such as “Yes” or “No” (Y or N) to the flow chart at Figure 6. ✓

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

Claim 1 and 12 are objected to because of the following informalities: Claim 1 recites the limitation “a circuit” and “a packet” in line 4. Claim 12 recites “a circuit” and “a packet” in line 6. There is insufficient antecedent basis for this limitation in the claim.

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Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

**Claim 1** states a hybrid telecommunications switch comprising: at least one circuit switch fabric; at least one packet switch fabric; and a controller configured to separate telecommunications traffic received at the switch and to direct traffic to either a circuit or a packet switch fabric, the controller **mapping Internet Protocol (IP) traffic into ATM service categories and directing IP traffic corresponding to at least one ATM service category to a circuit switch fabric.**

The following lists the reasons for enablement since the specification does not address them.

- **“mapping Internet Protocol (IP) traffic into ATM service categories”** - It is well known in the art that IP traffic can either map or encapsulate into ATM service categories.

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The mapping procedure of IP into ATM is not defined. It is not clear how IP mapped into ATM.

- **“directing IP traffic corresponding to at least one ATM service category to a circuit switch fabric”** – It is well know in the art the circuit switching is based upon channelized switching (e.g. TDM). The procedure for mapping and directing ATM categorized IP traffic into a circuit switch is not defined. ATM categorized IP traffic cannot be switched via a circuit switch without mapping/encapsulating/converting into circuit switch-able traffic. It is not clear how IP traffic is directed into a circuit switch.

**Claim 12** states a method for switching telecommunications traffic in a hybrid telecommunications switch comprising at least one packet switch fabric, at least one circuit switch fabric, and a controller, including the steps of:

- (A) the controller separating telecommunications traffic received at the switch,
- (B) the controller **mapping IP traffic into ATM service categories**, and
- (C) the controller directing traffic to either a packet or a circuit switch fabric, with **IP traffic that has been mapped into at least one ATM service category being directed to an circuit switch fabric.**

The following lists the reasons for enablement since the specification does not address them.

- **“mapping IP traffic into ATM service categories”** - It is well know in the art that the IP traffic can either map or encapsulate into ATM service categories. The mapping procedure of IP into ATM is not defined. It is not clear how IP mapped into ATM.

- **“IP traffic that has been mapped into at least one ATM service category being directed to an circuit switch fabric”** – It is well know in the art the circuit switching is based upon channelized switching (e.g. TDM). The procedure for mapping and directing ATM categorized IP traffic into a circuit switch is not defined. ATM categorized IP traffic cannot be switched via a circuit switch without mapping/encapsulating/converting into circuit switch-able traffic. It is not clear how IP traffic is directed into a circuit switch.

For **Claim 2-11 and 13-27**, please see the discussion above since they are rejected under 35 U.S.C. 112, first paragraph since they depend on Claim 1 and 12 above.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6, 11, 17, 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 6, 17, and 23, **“an IP switch”** (at Claim 6, line 3 and Claim 17, line 3) and **“an IP switch Fabric”** (at Claim 23, line 2) are stated. It is unclear whether **an IP switch** refers to a circuit switch fabric that carries IP traffic, or a packet switch fabric that carries IP traffic. Claim 1 and 12 recite **“packet switch fabric”**. Neither the specification nor the drawings disclose the IP switch.

**In Claim 11**, it is unclear what is the based value of the “peak to sustained packet rate ratio” and how to determine that value according to the applicant’s invention. The specification only shows standard ATM QoS ratio, but it does not address how does that ratio relates to applicant’s invention.

**In Claim 24**, it is unclear what is the “threshold value”, how does one set up the ratio such that it is comparable to the threshold, and how to determine that threshold according to applicant’s invention. The specification only shows standard ATM QoS ratio and states threshold value as variable, but it does not address how does the ratio and threshold value relate to applicant’s invention.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 703-605-1531. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Ian N Moore  
Examiner  
Art Unit 2661

INM  
9/3/03

  
**KENNETH VANDERPUYE**  
**PRIMARY EXAMINER**